The Road Inventory of Valentine National Wildlife Refuge Valentine, NE





Prepared By: Federal Highway Administration Central Federal Lands Highway Division June, 2008



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INTRODUCTION

The Transportation Equity Act for the 21st Century (Public Law 105-178) created the Refuge Roads Program. Refuge roads are those public roads that provide access to or within a unit of the National Wildlife Refuge System and for which title and maintenance responsibility is vested in the United States Government. Funds from the Highway Trust Fund are available for refuge roads and can be used by the station to pay the cost of:

- (a) Maintenance and improvements of refuge roads.
- (b) Maintenance and improvements of:
 - (1) Adjacent vehicle parking areas
 - (2) Provision for pedestrians and bicycles and
 - (3) Construction and reconstruction of roadside rest areas that are located in or adjacent to wildlife refuges
- (c) Administrative costs associated with such maintenance and improvements.

The funds available for refuge roads are to be disbursed based on the relative needs of the various refuges in the National Wildlife Refuge System, and taking into consideration:

- (a) The comprehensive conservation plan for each refuge;
- (b) The need for access as identified through land use planning; and
- (c) The impact of land use planning on existing transportation facilities.

To determine the relative needs of the U.S. Fish and Wildlife Service, the Federal Highway Administration (FHWA) was asked to inventory all public access roads and parking lots and provide a condition assessment of each. In 2008 the inventory was expanded to include administrative (service use only) roads and parking lots. An FHWA representative meets with refuge personnel to identify route segments and assign route numbers and functional classifications (See Appendix) for each route. All roads and parking lots are mapped using Trimble GPS units and visually assessed for condition using the RSL method of evaluation developed at Utah State University (See Appendix). Culverts, Gates, Guardrails and Low Water Crossings are also mapped and inspected for any obvious defects.

An estimate is provided, in year 2008 dollars, based on the condition determined by the rating system. Estimates are based upon data and location factors from the 2008 RS Means Heavy Construction Cost Data 22nd Annual Edition. Cost estimates should be evaluated on a case-by-case basis when being used for programming purposes.

Native Surfaced roads and parking lots already inventoried will not be re-inventoried and will not appear individually in report chapters 5, 6 and 8. Mileages and areas of native surfaced roads and parking lots will still appear in all summaries in the report and will remain in the road inventory database. In addition to this report, the FHWA will furnish the condition ratings of each route and segment to the Fish and Wildlife Service in a Microsoft Access database so the data can be included in their Real Property Inventory.

Valentine NWR

Summaries

Route Miles and Percentages by Functional Class and Condition

				Conditio	n Rating (Based on	RSL)*				
	Excellent		Good		Fair		Poor		Failed		TOTAL
F. C.	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	MILES
I	2.53	19.0%	9.54	71.7%	1.05	7.9%	0.19	1.4%			13.31
II	0.14	0.6%	4.28	19.2%	13.40	60.1%	0.53	2.4%	3.96	17.7%	22.31
III											
IV	0.11	13.3%	0.64	77.1%	0.08	9.6%					0.83
٧											
Totals	2.78	7.6%	14.46	40%	14.53	39.9%	0.72	2.0%	3.96	10.9%	36.45

^{*}For a description of condition ratings for the various surface types see the Appendix.

Route Miles and Percentages by Surface Type and Condition

		Paved Condition Rating [Condition(RSL)]									
	Excellent (19-20)		Good (13-18)		Fair (7-12)		Poor (1-6)		Failed (0)		TOTAL
S. T.	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	MILES
AS					0.08	29.6%	0.19	70.4%			0.27
СО											
Totals					0.08	29.6%	0.19	70.4%			0.27

		Unpaved Condition Rating [Condition(RSL)]									
	Excellent (8-10)		Good (5-7)		Fair (3-4)		Poor (1-2)		Failed (0)		TOTAL
S. T.	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	MILES
GR	2.75	17.7%	12.80	82.3%							15.55
NA	0.03	0.1%	1.66	8.0%	14.45	70.0%	0.53	2.6%	3.96	19.2%	20.63
PR											
Totals	2.78	7.7%	14.46	40.0%	14.45	39.9%	0.53	1.5%	3.96	10.9%	36.18

Square Footage (Parking Areas)

					Condition	Rating					
	Excellent		Good		Fa	Fair		Poor		led	Total
	Square		Square		Square		Square		Square		Square
S. T.	Feet	%	Feet	%	Feet	%	Feet	%	Feet	%	Feet
AS											
СО	315	26.7%	865	73.3%							1180
GR	11214	9.8%	45571	39.9%	48414	42.4%	9031	7.9%			114230
NA			59578	31.2%	115951	60.7%	15619	8.2%			191148
PR											
Totals	11529	3.8%	106014	34.6%	164365	53.6%	24650	8.0%			306558

Valentine NWR

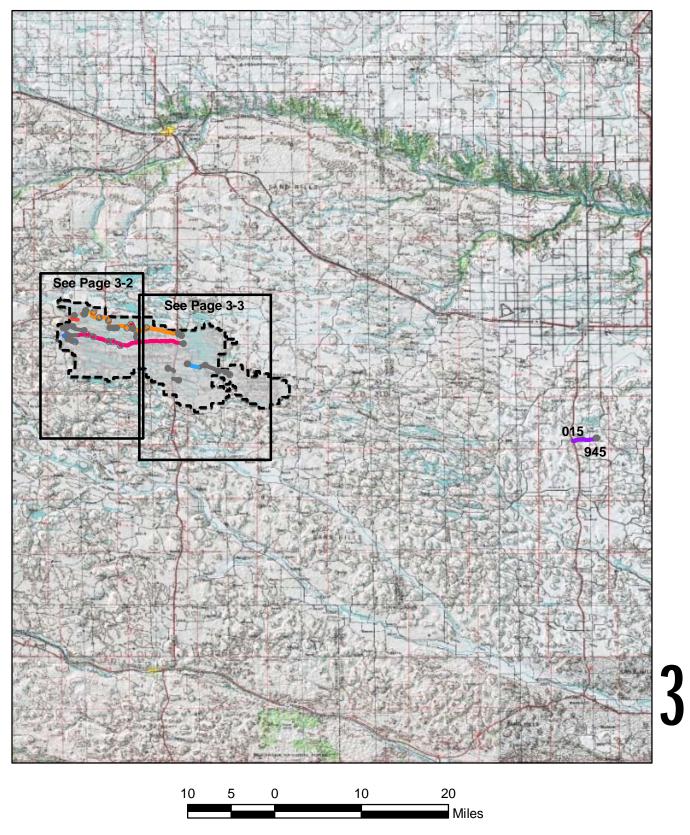
Summaries

Route Miles and Percentages by Use Type and Condition

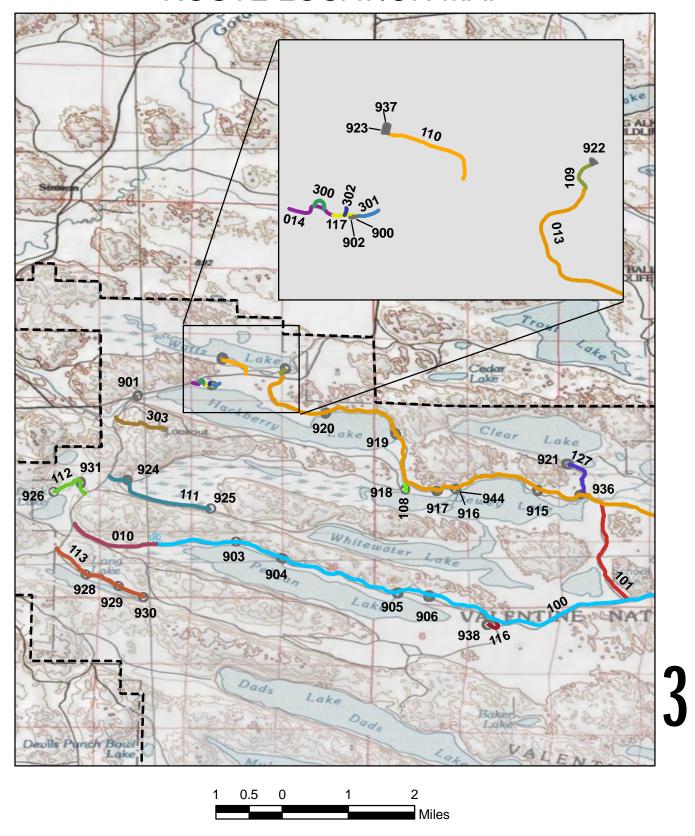
			Road C	ondition	Rating: P	ublic/Adı	ministrativ	e Use				PERCENT
	Excel	lent	God	bd	Fair		Poor		Failed		TOTAL	TOTAL
USE TYPE	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	MILES	MILES
Public (FC I-III)	2.67	7.5%	13.82	39%	14.45	40.6%	0.72	2.0%	3.96	11.1%	35.62	98%
Admin (FC IV-V)	0.11	13.3%	0.64	77.1%	0.08	9.6%					.83	2%
Totals	2.78	7.6%	14.46	40%	14.53	39.9%	0.72	2.0%	3.96	10.9%	36.45	

				Par	king Cond	lition Rat	ing					PERCENT
	Excellent		Good		Fair		Poor		Failed		Total	TOTAL
	Square		Square		Square		Square		Square		Square	SF
USE TYPE	Feet	%	Feet	%	Feet	%	Feet	%	Feet	%	Feet	
Public	11529	3.8%	106014	34.6%	164365	53.6%	24650	8.0%			306558	100%
Admin												
Totals	11529	3.8%	106014	34.6%	164365	53.6%	24650	8.0%			306558	

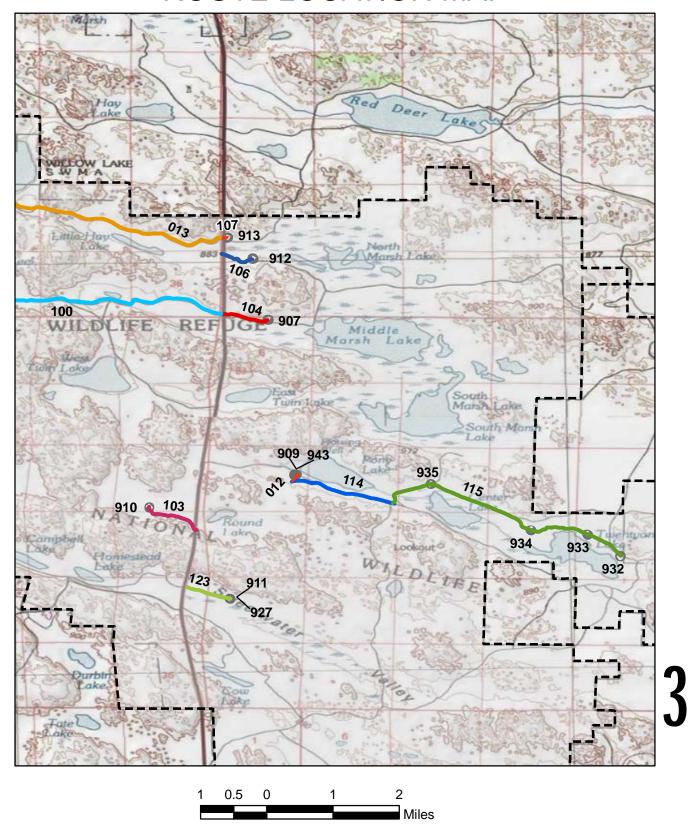
Valentine National Wildlife Refuge ROUTE LOCATION MAP



Valentine National Wildlife Refuge ROUTE LOCATION MAP



Valentine National Wildlife Refuge ROUTE LOCATION MAP



Valentine NWR - 64521 - ROUTE IDENTIFICATION LIST (NUMERIC)

Shading Color Key:

White = Paved Routes

Yellow = Unpaved Routes

RTE#	Asset Number	ROUTE NAME	RTE MI	ROUTE DESCRIPTION	PAVED MI	UN- PAVED MI	LANES	FC
010	10030547	Pelican Lake Quarters Road	1.05	From County Road to Pelican Lake Quarters	-	1.05	1	1
012	10047850	Pony Lake Entrance Road	0.18	From County Road to Pony Lake Parking (Route 909)	i	0.18	1	1
013	10030551	Little Hay Valley Trail	9.54	From State Highway 16B to U.S. Highway 83	-	9.54	1	1
014	10030733	Headquarters Entrance Road	0.19	From State Highway 16B to Hackberry Lake HQ Boat Ramp Trail (Route 117)	0.19	-	1	1
015	10030693	Yellowthroat Access Road	2.35	From State Highway 7 to Yellowthroat WMA Boat Ramp Parking (Route 945)	-	2.35	1	1
100	10030548	Calf Camp Trail	9.33	From Pelican Lake Quarters Road (Route 010) to US Highway 83	-	9.33	1	2
101	10030550	School Lake Trail	1.59	From Little Hay Valley Trail (Route 013) to Calf Camp Trail (Route 100)	i	1.59	1	2
103	10030741	West Tom's Valley Trail	0.72	From US Highway 83 to West Tom's Valley Parking (Route 910)	i	0.72	1	2
104	10030737	Middle Marsh Lake/19C Trail	0.52	From US Highway 83 to Middle Marsh Lake 19C Parking Area (Route 907)	1	0.52	1	2
106	10030738	Buck's Cabin/18B6 Trail	0.41	From US Highway 83 to Buck's Cabin 18B6 Parking (Route 912)	-	0.41	1	2
107	10030739	North Marsh Lake 18B4 Trail	0.08	From US Highway 83 to North Marsh Lake 18B4 Trail Parking (Route 913)	-	0.08	1	2
108	10040016	Dewey Lake West Boat Ramp Acces Trail	0.14	From Little Hay Valley Trail (Route 013) to Dewey Lake West Boat Ramp Parking (Route 918)	-	0.14	1	2
109	10039933	Watt's Lake East Access Trail	0.14	From State Highway 16B Spur to Watt's Lake East Boat Ramp Parking #1 (Route 922)	-	0.14	1	2
110	10030676	Watt's Lake Access Road	0.38	From State Highway 16B Spur to Watt's Lake West Boat Ramp Parking (Route 923)	-	0.38	1	2
111	10030743	Dewey Marsh Trail	1.33	From County Road to Devey Marsh East Parking (Route 925)	-	1.33	1	2
112	10030676	Duck Lake Trail	0.58	From County Road to Duck Lake Parking #2 (Route 926)	-	0.58	1	2
113	10030677	West Long Lake Trail	1.29	From County Road to West Long Lake End of Road Parking Parking (Route 930)	-	1.29	1	2
114	10030549	Pony Lake Road	1.23	From Pony Lake Entrance Road (Route 012) to end of route	-	1.23	1	2
115	10054319	East End Access Road	3.14	From Pony Lake Road (Route 114) to East End 34A4 Access Parking (Route 932)	-	3.14	1	2
116	10040029	Pelican Lake East Boat Ramp Trail	0.23	From Pony Lake Road (Route 114) to East End 34A4 Access Parking (Route 932)	-	0.23	2	2
117	10039941	Hackberry Lake HQ Boat Ramp Trail	0.09	From Headquarters Entrance Road (Route 014) to Hackberry Storage Area Road (Route 301)	-	0.09	2	2
123	10030740	East Sweetwater Trail	0.53	From US Highway 83 to East Sweetwater Unit 29A1 Trail Parking A (Route 911) and East Sweetwater Unit 29A1 Trail Parking B (Route 927)	1	0.53	1	2
127	10030675	Clear Lake Trail	0.58	From Little Hay Valley Trail (Route 013) to Clear Lake Boat Ramp Parking (Route 921)	-	0.58	1	2
300	-	Headquarters Service Access Road	0.08	From Headquarters Entrance Road (Route 014) to Headquarters Entrance Road (Route 014)	0.08	-	2	4
301	10030733	Hackberry Storage Area Road	0.08	From Hackberry Lake HQ Boat Ramp Trail (Route 117) to Quonset Building	-	0.08	1	4

Valentine NWR - 64521 - ROUTE IDENTIFICATION LIST (NUMERIC)

Shading Color Key: White = Paved Routes

Yellow = Unpaved Routes

RTE#	Asset Number	ROUTE NAME	RTE MI	ROUTE DESCRIPTION	PAVED MI	UN- PAVED MI	LANES	FC
302	-	Trappers Shack Quarters 10 Driveway	0.03	From Hackberry Lake HQ Boat Ramp Trail (Route 117) to Trappers Shack	ı	0.03	1	4
303	-	Hackberry Fire Tower Road	0.64	From County Road to Hackberry Fire Tower	-	0.64	1	4

Valentine NWR - 64521 - ROUTE IDENTIFICATION LIST (PARKING)

Shading Color Key:

Green = Unpaved Parking Lots
Blue = Paved Parking Lots

RTE#	ASSET NUMBER	ROUTE NAME	RTE SQFT	ROUTE DESCRIPTION	PAVED SQFT	UN- PAVED SQFT
900	10030701	Hackberry Headquarters Boat Ramp Parking A	2841		-	2841
901	10039946	CCC Tower Nature Trail Parking	6358		-	6358
902	10030701	Hockberry Headquarters Boat Ramp Parking B	1227		-	1227
903	10039943	Pelican Lake 5B2 Boat Ramp Parking	3378		-	3378
904	10030700	Pelican Lake Rock Boat Ramp Parking	11626		-	11626
905	10040011	Pelican Lake West Boat Ramp Parking	17174		-	17174
906	10040013	Pelican Lake East Boat Ramp Parking	28748		-	28748
907	10050681	Middle Marsh Lake 19C Parking Area	5122		-	5122
909	10040027	Pony Lake Subheadquarters Parking	14863		-	14863
910	10050685	West Tom's Valley Parking	3403		-	3403
911	10050684	East Sweetwater Unit 29A1Trail Parking A	1557		-	1557
912	10050682	Buck's Cabin 18B6 Parking	6492		-	6492
913	10050683	North Marsh Lake 18B4 Trail Parking	3325		-	3325
914	10040025	Willow Lake Parking	6044		-	6044
915	10040022	Dewey Lake Unit 4 Parking	13406		-	13406
916	10030718	Dewey Lake East 3D Boat Ramp Parking	11214		-	11214
917	10040020	Dewey Lake 3D Parking	8820		-	8820
918	10040019	Dewey Lake West Boat Ramp Parking	2031		-	2031
919	10030698	Hackberry Lake East Boat Ramp Parking	9031		-	9031
920	10040015	Hackberry Lake 3B Boat Ramp Parking	10565		-	10565
921	10030719	Clear Lake Boat Ramp Parking	26607		-	26607
922	10030716	Watt's Lake East Boat Ramp Parking #1	11167		-	11167
923	10030699	Watt's Lake West Boat Ramp Parking	26331		-	26331
924	10040008	Dewey Marsh West Parking	3727		-	3727
925	10040010	Dewey Marsh East Parking	6007		-	6007
926	10030717	Duck Lake Parking #2	5136		-	5136
927	10050684	East Sweetwater Unit 29A1Trail Parking B	743		-	743
928	10030697	West Long Lake Rock Boat Ramp Parking	4099		-	4099
929	10040005	West Long Lake East Boat Ramp Parking	3386		-	3386

Valentine NWR - 64521 - ROUTE IDENTIFICATION LIST (PARKING)

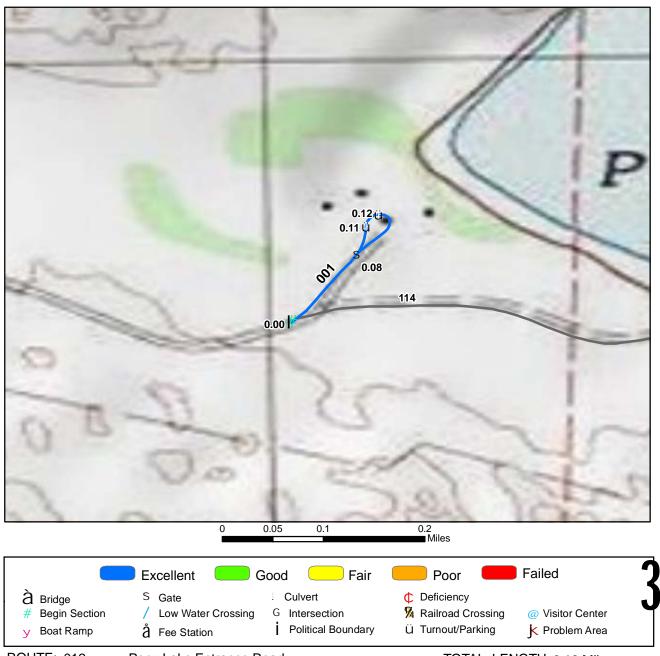
Shading Color Key:

Green = Unpaved Parking Lots
Blue = Paved Parking Lots

RTE#	ASSET NUMBER	ROUTE NAME	RTE SQFT	ROUTE DESCRIPTION	PAVED SQFT	UN- PAVED SQFT
930	10040007	West Long Lake End of Road Parking	6264		1	6264
931	10039949	Rice Lake Parking	7739		-	7739
932	10054323	East End 34A4 Access Parking	4475		-	4475
933	10054322	East End Unit 33 Acces Parking	2434		-	2434
934	10054321	East End East 32B1 Access Parking	3105		-	3105
935	10054320	East End West 32B1 Access Parking	2280		-	2280
936		Dewey Lake Parking 5	6611		-	6611
937		Watt's Lake West Handicapped Boat Ramp Parking	315		315	-
938	10040030	Pelican Lake East Boat Ramp Parking	12856		-	12856
943		Pony Lake Handicapped Parking	473		473	-
944	10030718	Dewey Lake Handicap Parking	392		392	-
945	10030702	Yellowthroat WMA Boat Ramp Parking	5186		-	5186

CHANGES TO THE FISH AND WILDLIFE SERVICE ROAD INVENTORY REPORT Valentine NWR - 64521

Rou	tes added	to previous inventory:			No routes added to previous inventory.
	Rte#	Rte Name			-
1.			Rte Desc:		
			Reason for A	Addition:	
2.			Rte Desc:		
			Reason for A	Addition:	
3.			Rte Desc:		
J .			Reason for Addition:		
Son	tes remov	ed from previous invento	rv-		No routes removed from previous inventory.
	Rte#	Rte Name	<u> </u>		no routes routes as a provised and allowy.
4			Rte Desc:		
1.			Reason for F	Removal:	
2.			Rte Desc:		
۷.		Reason for F	Removal:		
3.			Rte Desc:		
J .			Reason for F	Removal:	
Rou	tes modifi	ed from previous invento	rv:		No routes modified from previous inventory.
	Rte#	Rte Name	ĺ		
1.			Rte Desc:		
'			Modification:	:	
2.			Rte Desc:		
۷.			Modification:	:	
3.			Rte Desc:		
3.			Modification:	:	
Com	ments:				



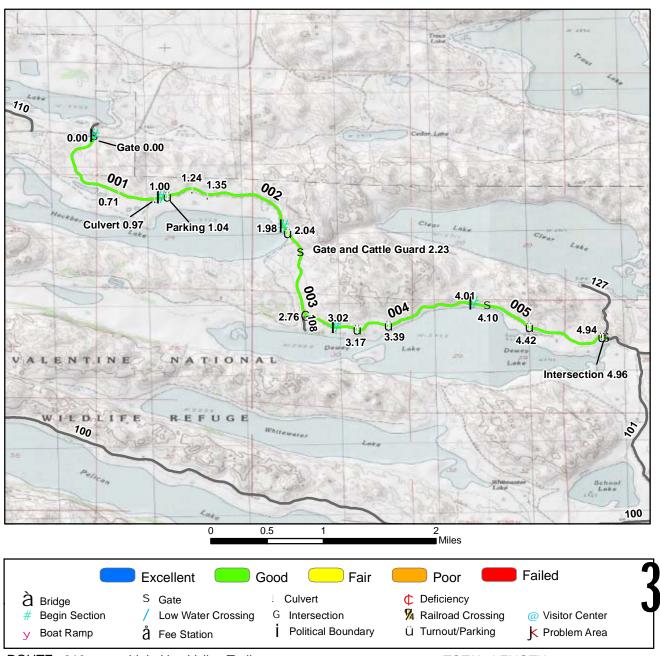
ROUTE: 012 Pony Lake Entrance Road

TOTAL LENGTH: 0.18 Miles

ASSET: 10047850

RTE DESCRIPTION: From County Road to Pony Lake Parking (Route 909)

Section Number Section Length (miles) Inspection Date	001 0.18 6/10/2008		
Section Information			
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 10		
Roadway Condition Information			
Condition	Excellent		
Remaining Service Life (years)	10		
Cost Estimate	\$0 \$112500		
CRV	φ112500		

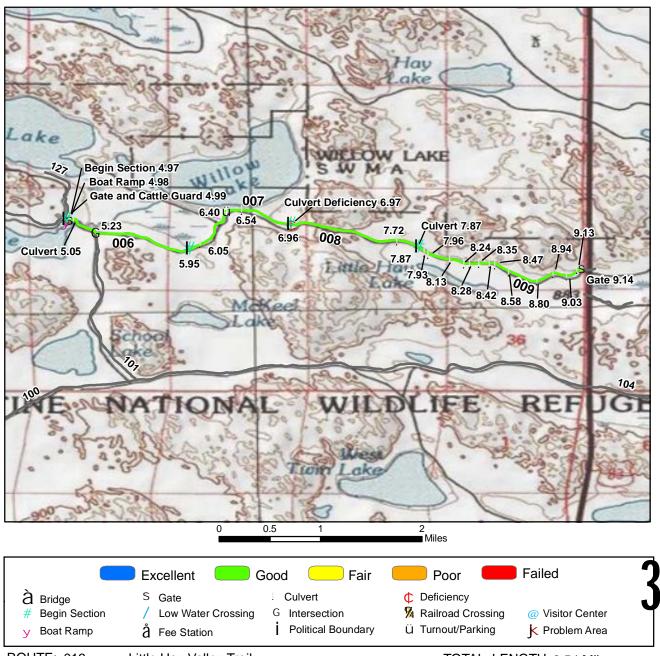


ROUTE: 013 Little Hay Valley Trail TOTAL LENGTH: 9.54 Miles

ASSET: 10030551

RTE DESCRIPTION: From State Highway 16B to U.S. Highway 83

Section Number Section Length (miles) Inspection Date	001	002	003	004	005
	1.04	1.02	1.06	1.03	1.01
	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008
Section Information					
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel
Number of Lanes	1	1	1	1	1
Roadway Width (feet)	14	14	14	14	12
Roadway Condition Information					
Condition Remaining Service Life (years) Cost Estimate CRV	Good	Good	Good	Good	Good
	7	7	7	5	7
	\$1500	\$1500	\$1600	\$1500	\$1500
	\$650300	\$637700	\$662800	\$644000	\$631500

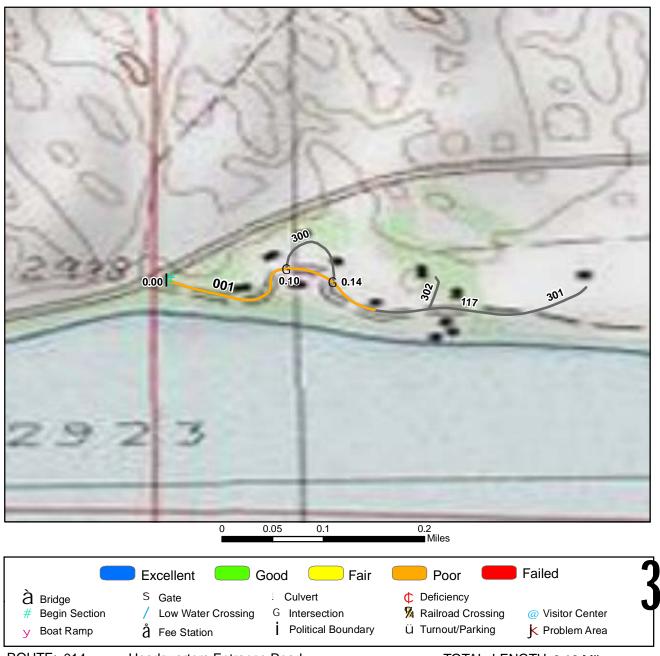


ROUTE: 013 Little Hay Valley Trail TOTAL LENGTH: 9.54 Miles

ASSET: 10030551

RTE DESCRIPTION: From State Highway 16B to U.S. Highway 83

Section Number Section Length (miles) Inspection Date	006 1.03 6/10/2008	007 1.02 6/10/2008	008 0.99 6/10/2008	009 1.34 6/10/2008	
Section Information					
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 12	Gravel 1 12	Gravel 1 12	Gravel 1 12	
Roadway Condition Information					
Condition Remaining Service Life (years) Cost Estimate CRV	Good 7 \$1500 \$644000	Good 7 \$1500 \$637700	Good 7 \$1500 \$619000	Good 7 \$2000 \$837800	



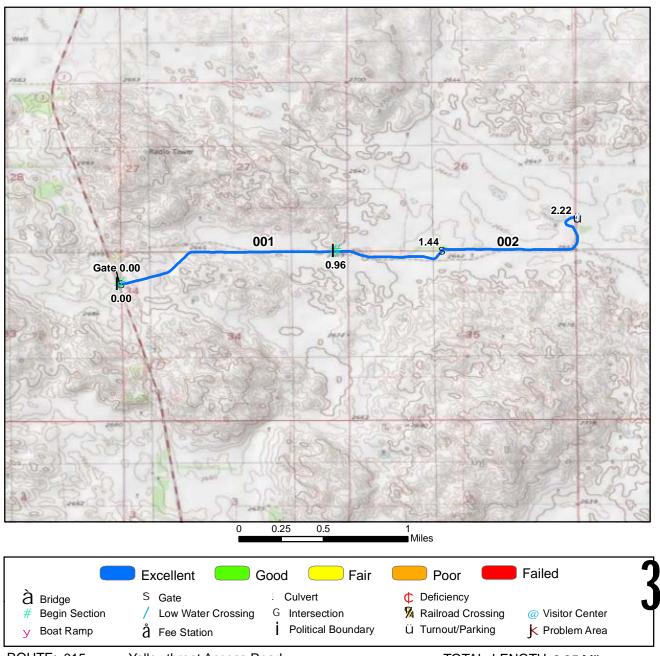
ROUTE: 014 Headquarters Entrance Road

TOTAL LENGTH: 0.19 Miles

ASSET: 10030733

RTE DESCRIPTION: From State Highway 16B to Hackberry Lake HQ Boat Ramp Trail (Route 117)

Section Number Section Length (miles) Inspection Date	001 0.19 6/10/2008		
Section Information			
Surface Type Number of Lanes Roadway Width (feet)	Asphalt 1 12		
Roadway Condition Information			
Condition	Poor		
Remaining Service Life (years)	5		
Cost Estimate	\$101500 \$206100		
CRV	ψ200100		



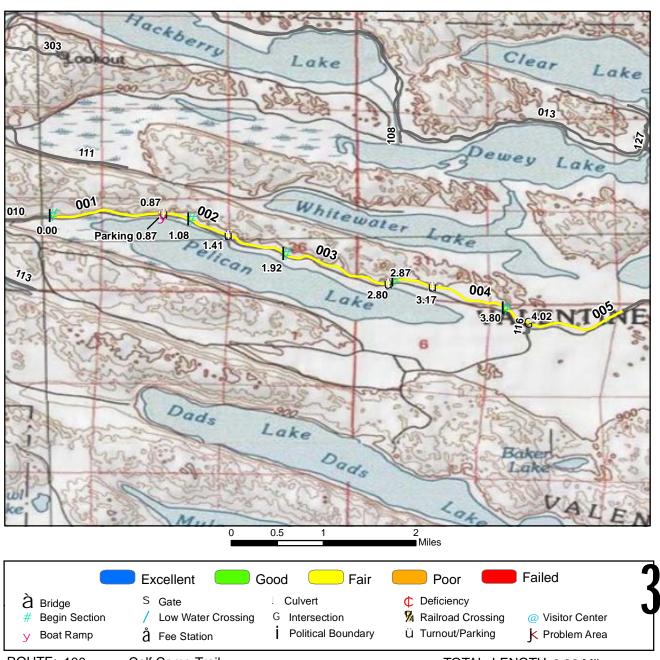
ROUTE: 015 Yellowthroat Access Road

TOTAL LENGTH: 2.35 Miles

ASSET: 10030693

RTE DESCRIPTION: From State Highway 7 to Yellowthroat WMA Boat Ramp Parking (Route 945)

Section Number Section Length (miles) Inspection Date	001 1.02 5/15/2008	002 1.33 5/15/2008		
Section Information				
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 10	Gravel 1 10		
Roadway Condition Information				
Condition Remaining Service Life (years) Cost Estimate CRV	Excellent 9 \$0 \$637700	Excellent 9 \$0 \$831600		

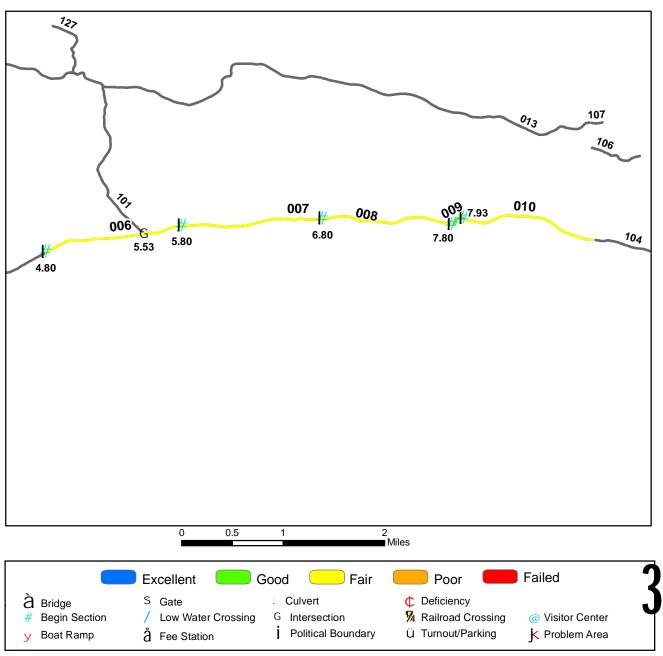


ROUTE: 100 Calf Camp Trail TOTAL LENGTH: 9.33 Miles

ASSET: 10030548

RTE DESCRIPTION: From Pelican Lake Quarters Road (Route 010) to US Highway 83

Section Number Section Length (miles) Inspection Date	001	002	003	004	005
	1.15	0.88	0.99	0.99	1.08
	5/21/2005	5/21/2005	5/21/2005	5/21/2005	5/21/2005
Section Information					
Surface Type	Native	Native	Native	Native	Native
Number of Lanes	1	1	1	1	1
Roadway Width (feet)	10	10	10	10	10
Roadway Condition Information					
Condition Remaining Service Life (years) Cost Estimate CRV	Fair	Fair	Fair	Fair	Fair
	4	4	3	4	4
	\$2300	\$1700	\$1900	\$1900	\$2100
	\$372000	\$284600	\$320200	\$320200	\$349300

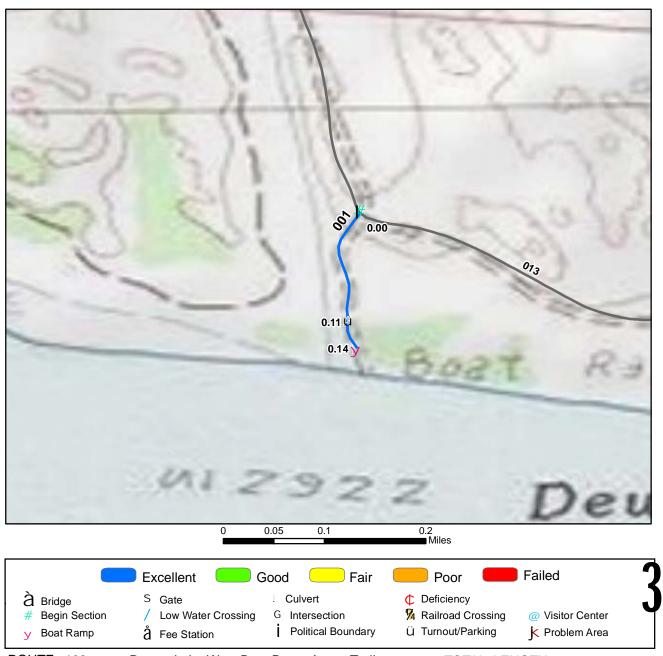


ROUTE: 100 Calf Camp Trail TOTAL LENGTH: 9.33 Miles

ASSET: 10030548

RTE DESCRIPTION: From Pelican Lake Quarters Road (Route 010) to US Highway 83

Section Number Section Length (miles) Inspection Date	006	007	008	009	010
	1.05	1.05	0.98	0.13	1.03
	5/21/2005	5/21/2005	5/21/2005	6/10/2008	5/21/2005
Section Information					
Surface Type	Native	Native	Native	Gravel	Native
Number of Lanes	1	1	1	1	1
Roadway Width (feet)	10	10	10	10	10
Roadway Condition Information					
Condition Remaining Service Life (years) Cost Estimate CRV	Fair	Fair	Fair	Good	Fair
	4	4	4	7	4
	\$2100	\$2100	\$1900	\$200	\$2000
	\$339600	\$339600	\$317000	\$81300	\$333200

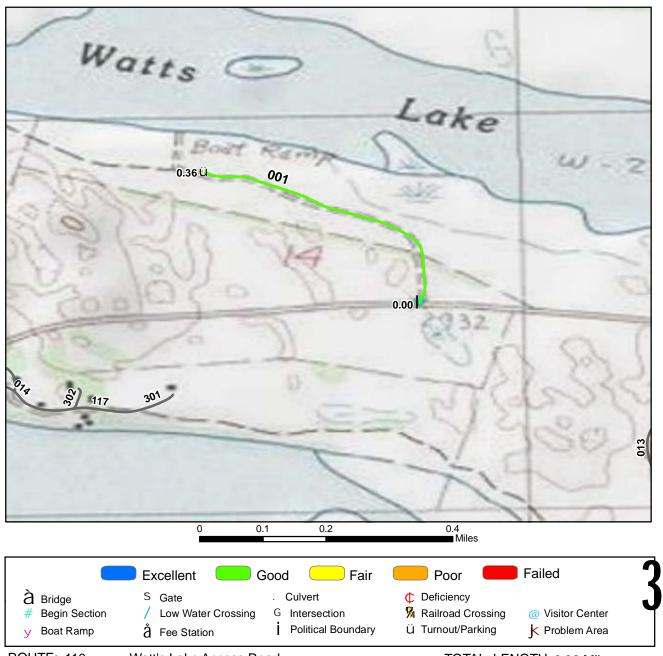


ROUTE: 108 Dewey Lake West Boat Ramp Acces Trail TOTAL LENGTH: 0.14 Miles

ASSET: 10040016

RTE DESCRIPTION: From Little Hay Valley Trail (Route 013) to Dewey Lake West Boat Ramp Parking (Route 918)

Section Number Section Length (miles) Inspection Date	001 0.14 6/10/2008		
Section Information			
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 10		
Roadway Condition Information			
Condition	Excellent		
Remaining Service Life (years)	9		
Cost Estimate	\$0 \$87500		
CRV	φο/ 300		

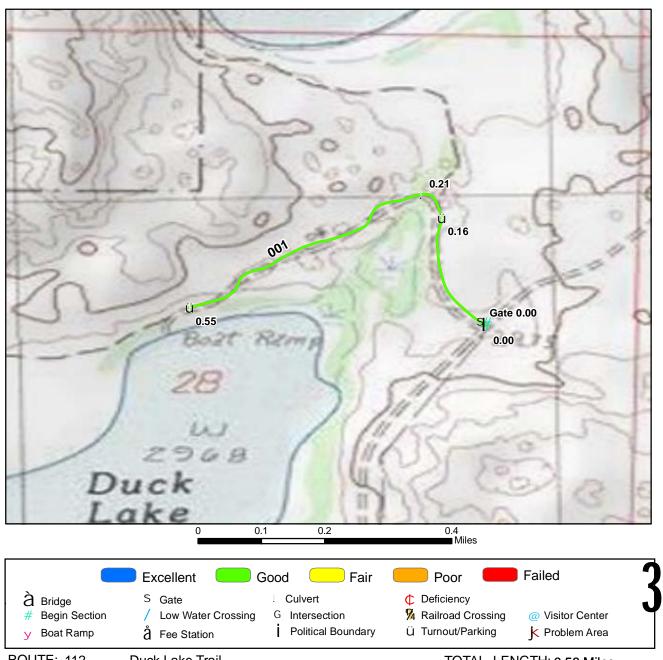


ROUTE: 110 Watt's Lake Access Road TOTAL LENGTH: 0.38 Miles

ASSET: 10030676

RTE DESCRIPTION: From State Highway 16B Spur to Watt's Lake West Boat Ramp Parking (Route 923)

Section Number Section Length (miles) Inspection Date	001 0.38 6/10/2008		
Section Information			
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 12		
Roadway Condition Information			
Condition	Good		
Remaining Service Life (years) Cost Estimate	7 \$600		
CRV	\$237600		

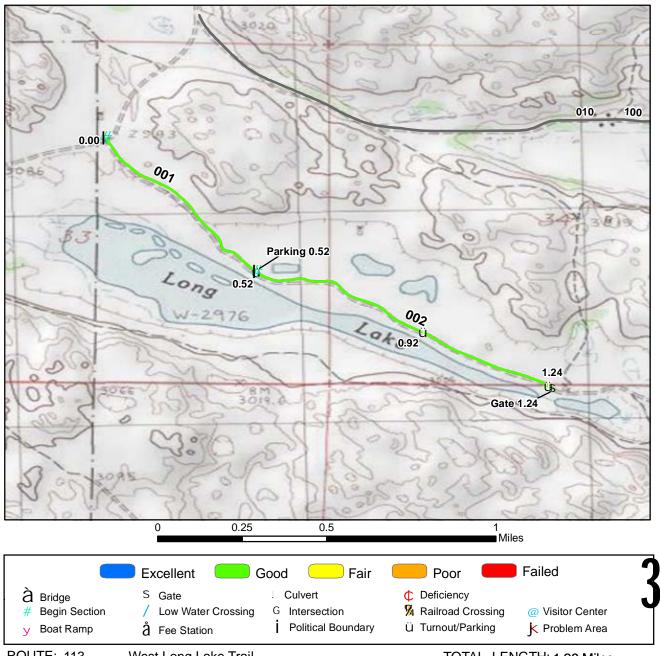


ROUTE: 112 Duck Lake Trail TOTAL LENGTH: 0.58 Miles

ASSET: 10030676

RTE DESCRIPTION: From County Road to Duck Lake Parking #2 (Route 926)

Section Number Section Length (miles) Inspection Date	001 0.58 6/10/2008		
Section Information			
Surface Type	Gravel		
Number of Lanes	1		
Roadway Width (feet)	12		
Roadway Condition Information			
Condition	Good		
Remaining Service Life (years)	7		
Cost Estimate	\$900		
CRV	\$362600		

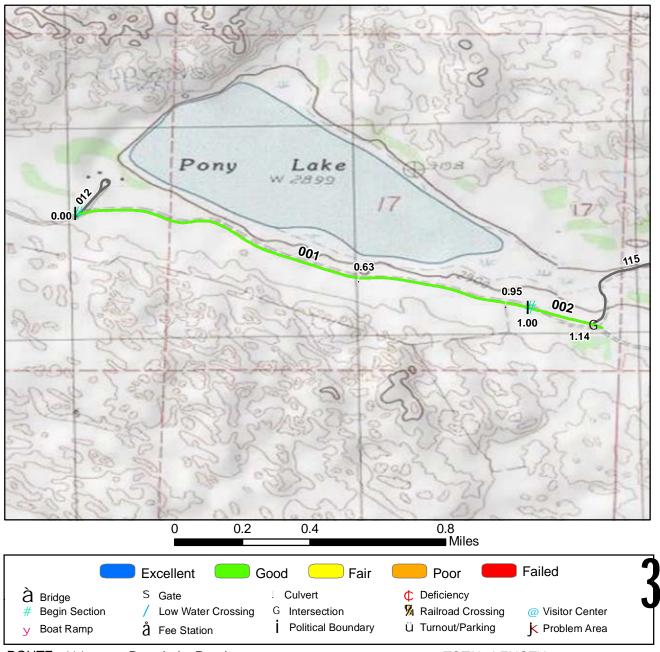


ROUTE: 113 West Long Lake Trail TOTAL LENGTH: 1.29 Miles

ASSET: 10030677

RTE DESCRIPTION: From County Road to West Long Lake End of Road Parking Parking (Route 930)

Section Number Section Length (miles) Inspection Date	001 0.53 6/10/2008	002 0.76 6/10/2008		
Section Information				
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 10	Native 1 8		
Roadway Condition Information				
Condition	Good	Good		
Remaining Service Life (years)	5 \$800	5 \$1200		
Cost Estimate CRV	\$331400	\$245800		

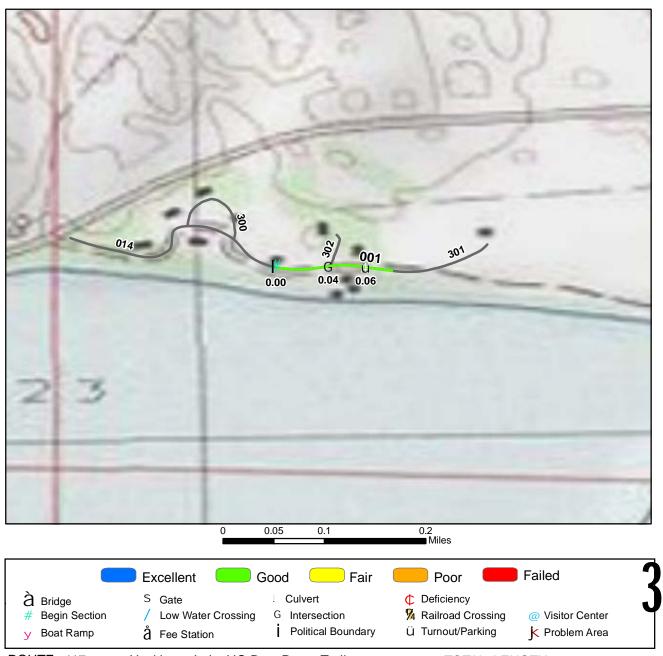


ROUTE: 114 Pony Lake Road TOTAL LENGTH: 1.23 Miles

ASSET: 10030549

RTE DESCRIPTION: From Pony Lake Entrance Road (Route 012) to end of route

Section Number Section Length (miles) Inspection Date	001 1.06 6/10/2008	002 0.17 6/10/2008		
Section Information				
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 12	Native 1 10		
Roadway Condition Information				
Condition Remaining Service Life (years) Cost Estimate CRV	Good 7 \$1600 \$662800	Good 7 \$300 \$55000		

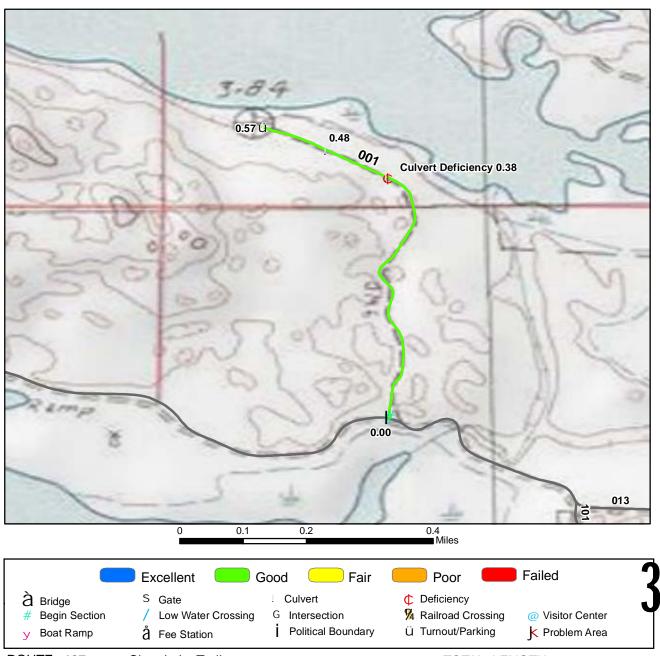


ROUTE: 117 Hackberry Lake HQ Boat Ramp Trail TOTAL LENGTH: 0.09 Miles

ASSET: 10039941

RTE DESCRIPTION: From Headquarters Entrance Road (Route 014) to Hackberry Storage Area Road (Route 301)

Section Number Section Length (miles) Inspection Date	001 0.09 6/10/2008		
Section Information			
Surface Type	Native		
Number of Lanes	2		
Roadway Width (feet)	16		
Roadway Condition Information			
Condition	Good		
Remaining Service Life (years)	7		
Cost Estimate	\$100		
CRV	\$29100		

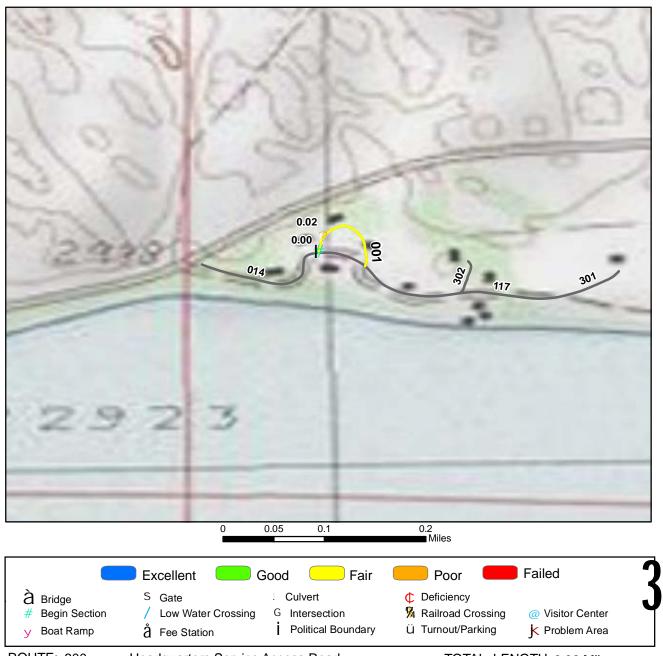


ROUTE: 127 Clear Lake Trail TOTAL LENGTH: 0.58 Miles

ASSET: 10030675

RTE DESCRIPTION: From Little Hay Valley Trail (Route 013) to Clear Lake Boat Ramp Parking (Route 921)

Section Number Section Length (miles) Inspection Date	001 0.58 6/10/2008		
Section Information			
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 12		
Roadway Condition Information			
Condition	Good		
Remaining Service Life (years)	7		
Cost Estimate	\$900 \$362600		
CRV	ψ502000		



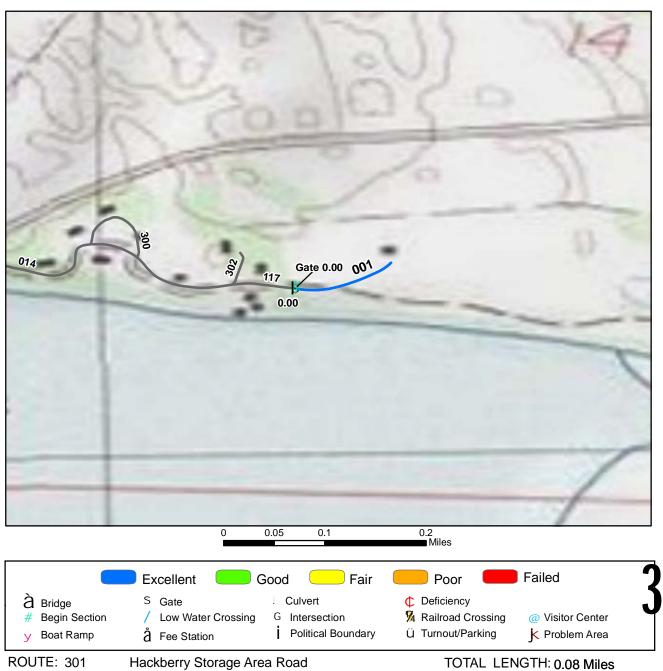
ROUTE: 300 Headquarters Service Access Road

TOTAL LENGTH: 0.08 Miles

ASSET:

RTE DESCRIPTION: From Headquarters Entrance Road (Route 014) to Headquarters Entrance Road (Route 014)

Section Number Section Length (miles) Inspection Date	001 0.08 6/10/2008		
Section Information			
Surface Type Number of Lanes	Asphalt 2		
Roadway Width (feet)	16		
Roadway Condition Information			
Condition	Fair		
Remaining Service Life (years)	10		
Cost Estimate CRV	\$7800 \$86800		

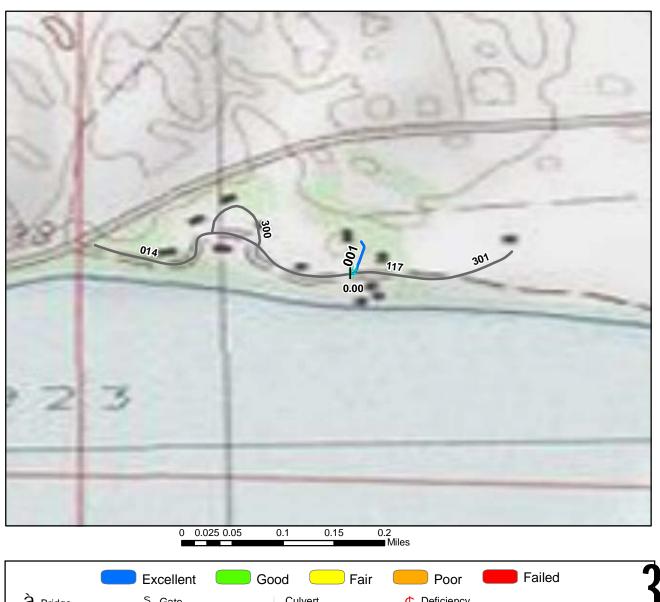


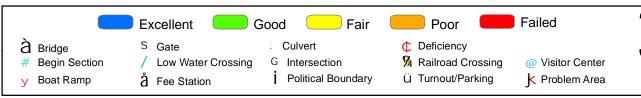
Hackberry Storage Area Road ROUTE: 301

ASSET: 10030733

RTE DESCRIPTION: From Hackberry Lake HQ Boat Ramp Trail (Route 117) to Quonset Building

Section Number Section Length (miles) Inspection Date	001 0.08 6/10/2008		
Section Information			
Surface Type Number of Lanes Roadway Width (feet)	Gravel 1 12		
Roadway Condition Information			
Condition	Excellent		
Remaining Service Life (years)	9		
Cost Estimate	\$0 \$50000		
CRV	\$50000		





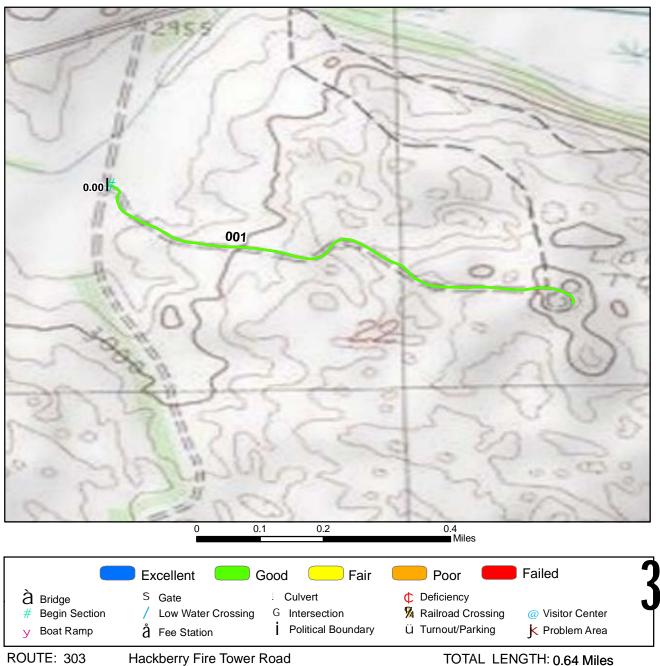
ROUTE: 302 Trappers Shack Quarters 10 Driveway

TOTAL LENGTH: 0.03 Miles

ASSET:

RTE DESCRIPTION: From Hackberry Lake HQ Boat Ramp Trail (Route 117) to Trappers Shack

Section Number Section Length (miles) Inspection Date	001 0.03 6/10/2008		
Section Information			
Surface Type	Native		
Number of Lanes	1		
Roadway Width (feet)	10		
Roadway Condition Information			
Condition	Excellent		
Remaining Service Life (years)	9		
Cost Estimate	\$0		
CRV	\$9700		



TOTAL LENGTH: 0.64 Miles

ASSET:

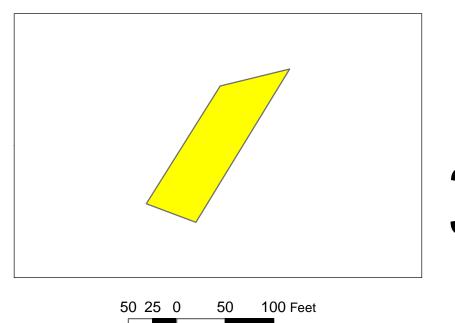
RTE DESCRIPTION: From County Road to Hackberry Fire Tower

Section Number Section Length (miles) Inspection Date	001 0.64 6/10/2008		
Section Information			
Surface Type	Native		
Number of Lanes	1		
Roadway Width (feet)	8		
Roadway Condition Information			
Condition	Good		
Remaining Service Life (years)	5		
Cost Estimate	\$1000		
CRV	\$207000		

Route 901: CCC Tower Nature Trail Parking

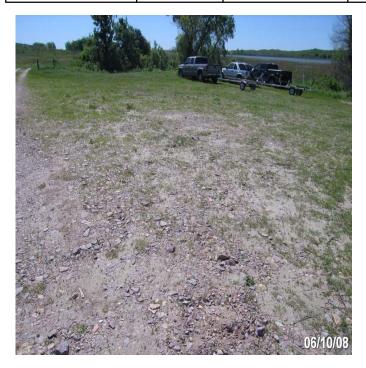
Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10039946	6/10/2008	Gravel	6358	Fair	\$1500



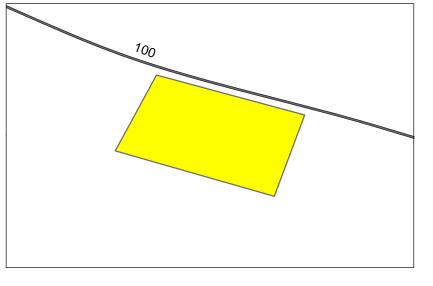


Route 904: Pelican Lake Rock Boat Ramp Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030700	6/10/2008	Gravel	11626	Fair	\$2800







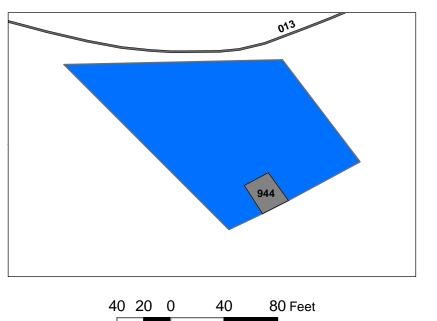
0 25 0 50 100 Feet

Route 916: Dewey Lake East 3D Boat Ramp Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030718	6/10/2008	Gravel	11214	Excellent	\$0





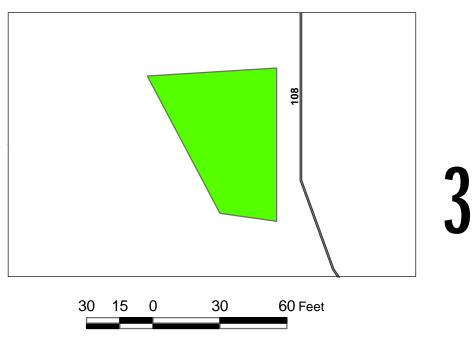


Route 918: Dewey Lake West Boat Ramp Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10040019	6/10/2008	Gravel	2031	Good	\$300

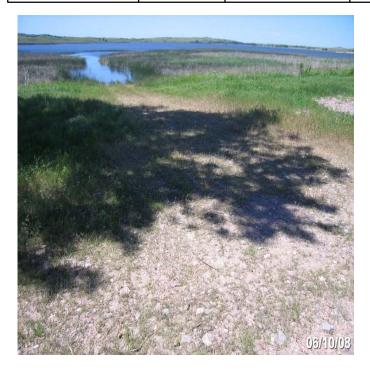




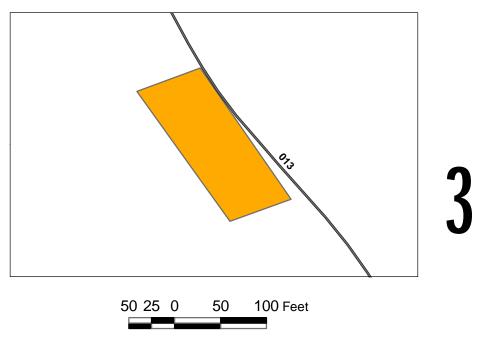


Route 919: Hackberry Lake East Boat Ramp Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030698	6/10/2008	Gravel	9031	Poor	\$9000

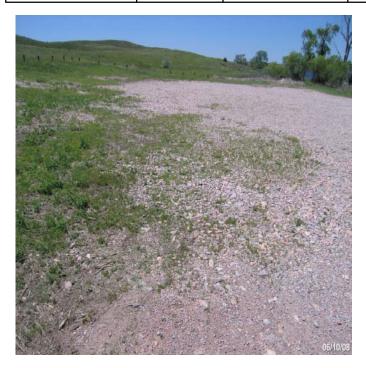




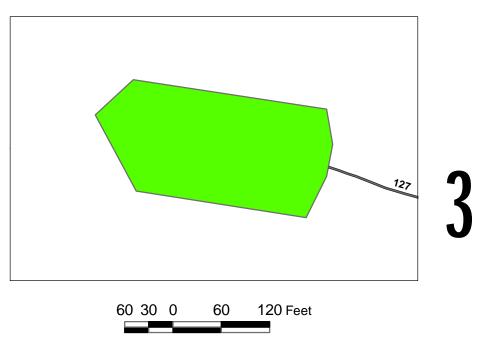


Route 921: Clear Lake Boat Ramp Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030719	6/10/2008	Gravel	26607	Good	\$3600





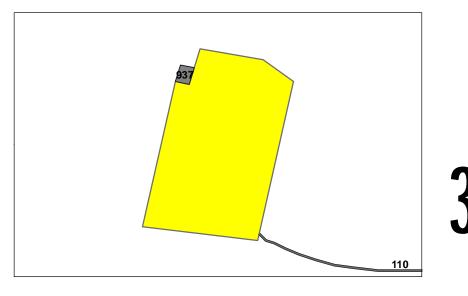


Route 923: Watt's Lake West Boat Ramp Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030699	6/10/2008	Gravel	26331	Fair	\$6300







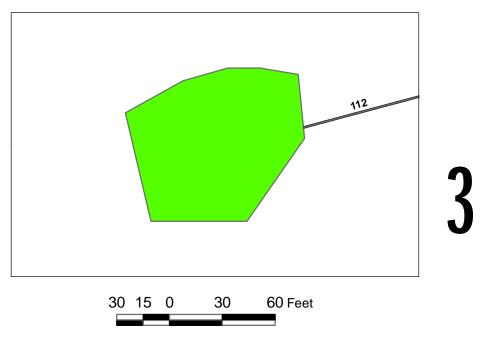
0 25 50 100 150 200 Feet

Route 926: Duck Lake Parking #2

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030717	6/10/2008	Gravel	5136	Good	\$700



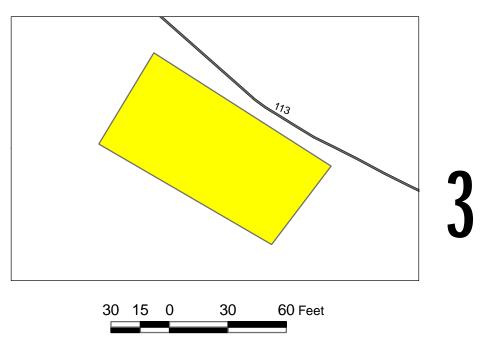




Route 928: West Long Lake Rock Boat Ramp Parking

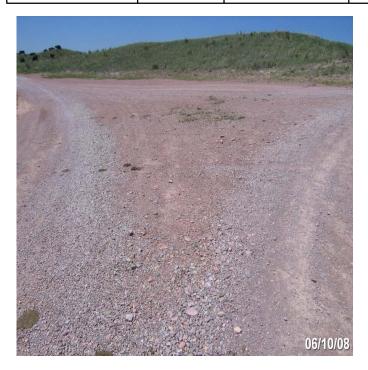
Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030697	6/10/2008	Gravel	4099	Fair	\$1000



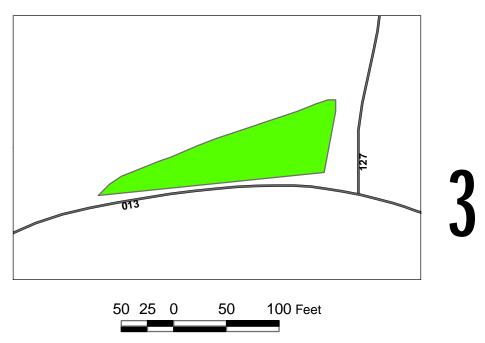


Route 936: Dewey Lake Parking 5

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
	6/10/2008	Gravel	6611	Good	\$900



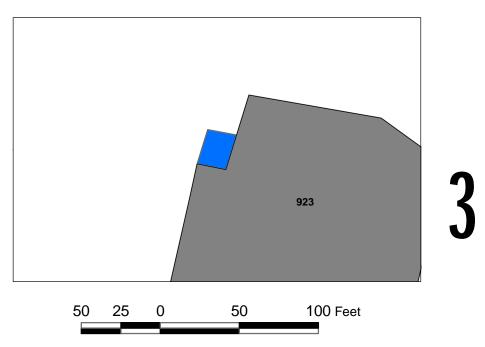




Route 937: Watt's Lake West Handicapped Boat Ramp Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
	6/10/2008	Concrete	315	Excellent	\$0

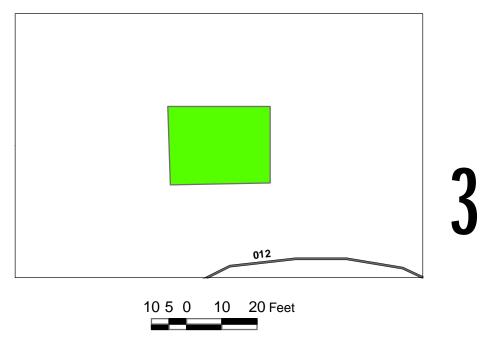




Route 943: Pony Lake Handicapped Parking

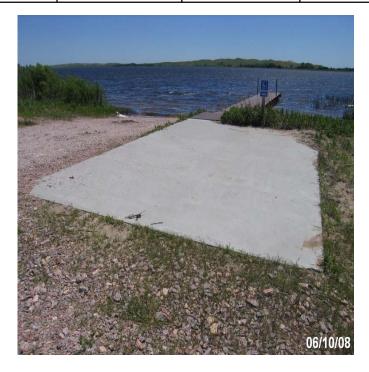
Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
	6/10/2008	Concrete	473	Good	\$100

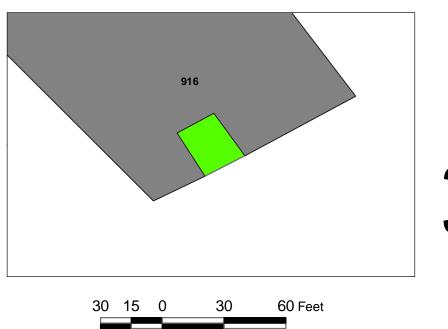




Route 944: Dewey Lake Handicap Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030718	6/10/2008	Concrete	392	Good	\$100

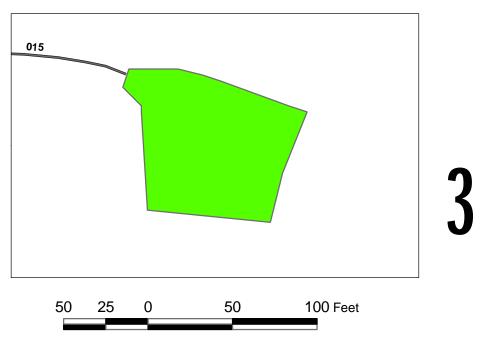




Route 945: Yellowthroat WMA Boat Ramp Parking

Asset Number	Date Visited	Surface Type	Area (sq ft)	Condition	Cost to Improve
10030702	5/15/2008	Gravel	5186	Good	\$700





Bridge Inventory					
Rte #	Milepost	NBIS#	Sufficiency Rating	Functionally Obsolete	Structurally Deficient
No bridges to report					

ROUTE NUMBER: 012 ROUTE NAME: Pony Lake Entrance Road



Photo # 5712 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 013 ROUTE NAME: Little Hay Valley Trail



Photo # 5633 - MP 0.00 - Begin Route at Begin Section



Photo # 5638 - MP 1.00 - Begin Section 002

ROUTE NUMBER: 013 ROUTE NAME: Little Hay Valley Trail



Photo # 5643 - MP 1.98 - Begin Section 003

ROUTE NUMBER: 013 ROUTE NAME: Little Hay Valley Trail



Photo # 5651 - MP 3.02 - Begin Section 004



Photo # 5655 - MP 4.01 - Begin Section 005

ROUTE NUMBER: 013 ROUTE NAME: Little Hay Valley Trail



Photo # 5658 - MP 4.97 - Begin Section 006

ROUTE NUMBER: 013 ROUTE NAME: Little Hay Valley Trail



Photo # 5672 - MP 5.95 - Begin Section 007



Photo # 5679 - MP 6.96 - Begin Section 008

ROUTE NUMBER: 013 ROUTE NAME: Little Hay Valley Trail



Photo # 5677 - MP 6.97 - Culvert Deficiency

ROUTE NUMBER: 013 ROUTE NAME: Little Hay Valley Trail





Photo # 5682 - MP 7.87 - Begin Section 009

ROUTE NUMBER: 014 ROUTE NAME: Headquarters Entrance Road



Photo # 5612 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 015 ROUTE NAME: Yellowthroat Access Road



Photo # 5392 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 015 ROUTE NAME: Yellowthroat Access Road



Photo # 5393 - MP 0.96 - Begin Section 002

ROUTE NUMBER: 100 ROUTE NAME: Calf Camp Trail



Photo # 5721 - MP 7.80 - Begin Section 009

ROUTE NUMBER: 100 ROUTE NAME: Calf Camp Trail



Photo # 5722 - MP 7.93 - Begin Section 010

ROUTE NUMBER: 108 ROUTE NAME: Dewey Lake West Boat Ramp Acces Trail



Photo # 5648 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 110 ROUTE NAME: Watt's Lake Access Road



Photo # 5628 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 112 ROUTE NAME: Duck Lake Trail



Photo # 5615 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 113 ROUTE NAME: West Long Lake Trail



Photo # 5621 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 113 ROUTE NAME: West Long Lake Trail



Photo # 5622 - MP 0.52 - Begin Section 002

ROUTE NUMBER: 114 ROUTE NAME: Pony Lake Road



Photo # 5715 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 114 ROUTE NAME: Pony Lake Road



Photo # 5718 - MP 1.00 - Begin Section 002

ROUTE NUMBER: 127 ROUTE NAME: Clear Lake Trail



Photo # 5661 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 127 ROUTE NAME: Clear Lake Trail



Photo # 5666 - MP 0.38 - Culvert Deficiency

ROUTE NUMBER: 127 ROUTE NAME: Clear Lake Trail



Photo # 5667 - MP 0.38 - Culvert Deficiency

ROUTE NUMBER: 300 ROUTE NAME: Headquarters Service Access Road



Photo # 5608 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 301 ROUTE NAME: Hackberry Storage Area Road



Photo # 5610 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 302 ROUTE NAME: Trappers Shack Quarters 10 Driveway



Photo # 5611 - MP 0.00 - Begin Route at Begin Section

ROUTE NUMBER: 303 ROUTE NAME: Hackberry Fire Tower Road



Photo # 5627 - MP 0.00 - Begin Route at Begin Section

Accident Summary

Number of Accidents Reported	Timespan of Accidents	Injuries	Fatalities
0	No Accidents to Report	0	0

APPENDIX

	FWS ROAD FUNCTIONAL CLASSIFICATION
Class I	Principal Refuge Road (Public Roads) - Routes that constitute the main access
	route, main auto tour route, or thoroughfare for refuge visitors. These routes are
	accessible by 2WD vehicles. Routes are numbered from 10 to 99.
Class II	Connector Refuge Road (Public Roads) - Routes that provide circulation within
	the refuge. These routes can also provide access to areas of scenic, scientific,
	recreational or cultural interest, such as overlooks, campgrounds, education
	centers, etc. These routes are accessible by 2WD vehicles. Routes are numbered
	from 100 to 199.
Class III	Special Purpose Refuge Road (Public Roads) - Roads that provide circulation
	within special use areas such as campgrounds or public concessionaire facilities
	or access to remote areas of the refuge. These routes may not be 2WD accessible.
	Routes are numbered from 200 to 299
Class IV	Administrative Access Road (Administrative Roads) - Routes intended for access
	to administrative developments or structures such as maintenance offices,
	employee quarters, or utility areas. These routes are accessible by 2WD vehicles.
	These routes may restrict access to the general public. Routes are numbered from
	300 to 399.
Class V	Restricted Road (Administrative Roads) - Routes normally closed to the public,
	such as maintenance roads, service roads, patrol roads, and fire breaks. These
	routes may be open to the public for a short period of time for a special use, such
	as hunting access. These routes may not be 2WD accessible. Routes are
	numbered from 400 to 499.

A refuge road system contains those routes within or giving access to a refuge or other unit of the FWS that are administered by the FWS, or by the Service in cooperation with other agencies. The assignment of a functional classification (FC) to a refuge road is not based on traffic volumes or design speed, but on the intended use or function of that route.

DESCRIPTION OF RATING SYSTEM

Rating Data is collected on four different surface types: Asphalt, Concrete, Gravel, and Native. The Utah LTAP Center's Remaining Service Life (RSL) system is used for all surface types. The RSL system is based on the Strategic Highway Research Program's (SHRP) Distress Identification Manual.

Asphalt Rating System

Data is collected on the following distresses and conditions:

- **Fatigue Cracking** Interconnected cracks forming small irregular shapes.
- **Longitudinal Cracking** Cracks running parallel with the roadway, in the direction of traffic.
- **Transverse Cracking** Cracks perpendicular to the roadway, going across the lane or lanes.
- **Block Cracking** Interconnected cracks forming large blocks.
- **Edge Cracking** Cracks running along the edge of the pavement surface.
- **Patches** Original surface repaired with new asphalt patch material.
- **Potholes** Holes or depressions in the pavement.
- **Rutting** surface depressions in the wheel paths.
- **Roughness** Evenness of pavement for serviceability.
- **Drainage** Ability of the road surface to drain water based on proper slope.

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

Fatigue, longitudinal, transverse, block, and edge cracking, along with patching and potholes are rated on a 0 - 9 scale (0 = no distress, 9 = maximum distress). The rating given is based on the extent and the severity of the distress. Rutting, roughness, and drainage are rated on a 0 - 3 scale (0 = excellent, 3 = poor). Each distress type has given Remaining Service Life (RSL) values (in years) based on the rating for that particular distress. The distress with the rating resulting in the lowest RSL value is considered to be the governing distress. That value is then assigned as the RSL of the road segment.

Concrete Rating System

Data is collected on the following distresses and conditions:

- **Spalling of Joints** Chipping, breaking, or cracking of slab edges
- Joint Seal Damage Any damage or condition that enables materials or water to infiltrate into the joint from the surface.
- **Corner Breaks** A portion of the slab separated by a crack that intersects the adjacent transverse and longitudinal joints, forming approximately a 45° angle to the direction.
- **Broken Slabs** Faulting and/or cracking localized to individual slabs.
- **Faulting** Difference in elevation across a crack or joint.
- **Longitudinal Cracking** Cracks in the pavement running parallel to road.

- **Transverse Cracking** Cracks in the pavement running perpendicular to the direction of traffic.
- **Patch Deterioration** Faulting, settling, or cracking of previously placed patch
- **Map Cracking** A series of cracks that extend only into the upper surface of the Slab

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

The rating procedure for concrete pavement is the same as that for asphalt pavement described previously. Each of the distresses described above are rated on the same 0-9 scale. The governing distress is then determined and the RSL associated with that distress is assigned to the road segment.

Gravel and Native Rating System

Data is collected on the following distresses and conditions:

- **Cross Section (Crown)** Roadway built so that the center is higher than the shoulder, to prevent water from pooling on roadway.
- **Roadside Drainage** Roadside ditches and culverts to handle water flow and prevent pooling on the roadside.
- **Corrugations (Washboarding)** Small trenches or holes developing perpendicular to the roadway.
- **Potholes** Holes or depressions in the roadway.
- **Rutting** Depressions running parallel with the roadway, in the wheelpaths.
- Dust Amount of dust caused by traffic.
- **Loose Aggregate (Gravel Only)** Loose gravel, typically piled up on the roadway edges or centerline.

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

The rating procedure for unpaved roads is the same as that for asphalt and concrete pavements described previously. Of the distresses described above, corrugations, potholes, rutting, and loose aggregate are rated on the same 0-9 scale previously mentioned. Cross section, roadside drainage, and dust are rated on the same 0-3 scale described for asphalt pavement. The governing distress is then determined and the RSL associated with that distress is assigned to the road segment.

Condition Descriptions by Surface Type

The following definitions are used to describe pavement condition for the various surface types. These are general guidelines for condition indications.

Asphalt

Excellent – Recently constructed or overlaid road where construction or overlay was performed correctly- No maintenance required. RSL = 19-20 years.

 ${f Good}$ – Low extent longitudinal and transverse cracks. All cracks are 1/4" or less with little or no crack erosion. Patches are in good condition and applied correctly. Routine Maintenance recommended. RSL = 13-18 years.

Fair - Roads are in good structural condition with little or no fatigue cracking. Longitudinal, transverse, and edge cracking is at medium extent and severity. Block cracking is not extensive. Any patches are in good condition. Preventative maintenance recommended. RSL = 7-12 years.

Poor - Road beginning to show signs of structural distress. Fatigue cracking is medium to high extent and medium severity. Cracking will be severe. Surface may have severe block cracking and show. Patches are in fair to poor condition. There is moderate distortion or rutting and occasional potholes. Rehabilitation recommended. RSL = 1-6 years.

Failed - Road is severely deteriorated. Signs of structural failure appear along with severe and extensive fatigue cracking, distortion, potholes, or extensive patches in poor condition. Reconstruction recommended. RSL = 0 years.

Concrete

Excellent - New pavement. No maintenance required. RSL = 19-20 years

Good - First signs of transverse cracking, patch or repair, more extensive pop-outs, or scaling. Sealing or routine maintenance recommended. RSL = 13-18 years.

Fair – Pavement has join or crack spalling, and/or faulting, along with cracking at corners with broken pieces. Any Patches are in fair condition and faulting is at a minimum. Preventative maintenance recommended. RSL = 7-12 years.

Poor - Joints and cracks are open 1 inch, spalled, or patched. Faulting is more severe. Rehabilitation recommended. RSL = 1-6 years.

Failed - Most slabs have failed structurally, and faulting is severe. Reconstruction recommended. RSL = 0 years.11-9

The following table shows the relationship between RSL and condition.

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE											
(Asphalt and Concrete Pavements)											
	FAILED	POOR		FAIR		GOOD		EXCELLENT			
RSL Years	0	1-3	4-6	7-9	10-12	13-15	16-18	19-20			

Gravel and Native

Note - Native surfaces do not have a gravel layer.

Excellent - Newly constructed road that has been constructed properly with proper crown, drainage and gravel layer. Little or no distress. No maintenance recommended. RSL = 8-10 years.

Good - Crown, drainage provisions, and gravel layer are in good condition. Distress limited to traffic effects such as dust, loose aggregate, and low severity corrugations (wash boarding). RSL = 5-7 years.

Fair - Adequate drainage and crown through majority of roadway. Crown repair, ditch improvement may be necessary. Road has more severe corrugations and potholes. Preventative maintenance recommended. RSL = 3-4 years.

Poor - Travel at slow speeds is necessary. Additional gravel layer needed to carry traffic. Poor crown. Ditching is inadequate and rutting is extensive and severe. Rehabilitation recommended. RSL = 1-2 years.

Failed - Travel is difficult, and road may be closed at times. Rutting and Corrugations are very severe. Total Reconstruction of road is recommended. RSL = 0 years.

The following table shows the RSL values for gravel and native roads in terms of excellent,good, fair, poor, and failed condition.

SUBJECTIVE CONDITION RATING FOR REMAINING										
SERVICE LIFE (Gravel and Native Surfaces)										
	FAILED	POOR	FAIR	GOOD	EXCELLENT					
RSL Years	0	1-2	3-4	5-7	8-10					